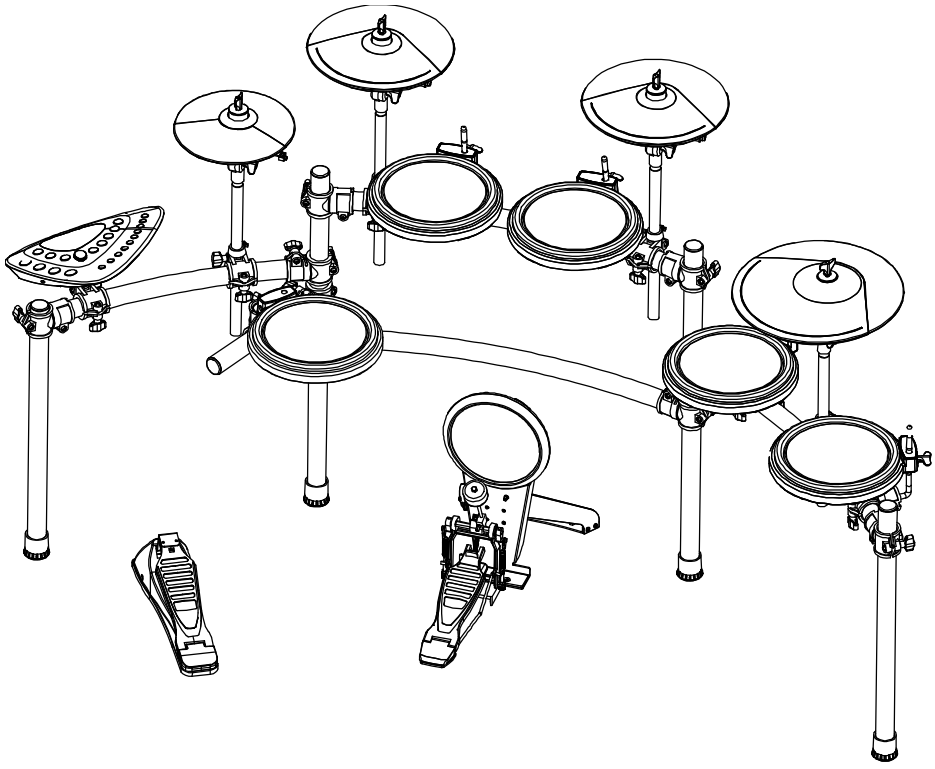
HD-010C Pro

DIGITAL DRUM

USER'S MANUAL



CAUTION

CAUTION

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WARNING

When using electrical products, basic safety precautions should always be followed, including the following:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
Also, this equipment has been tested and found to comply with the limits for following standard:
EN55022-2006
EN55024:1998/+A1:2001/+A2:2003
EN55013:2001/+A1:2003/+A3:2006
EN55020:2007
EN61000-3-2:2006
EN61000-3-3:1995/+A1:2001/+A2:2003

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

TAKING CARE OF YOUR DRUM

! DO NOT ATTEMPT TO OPEN THE UNIT OR MAKE ANY CHANGE IN THE CIRCUITS OR PARTS OF THE UNIT.

SERVICE AND MODIFICATION

This product should be serviced by qualified service personnel when,

- the power supply cord or the plug has been damaged,
- liquid has been spattered into the unit or it has been exposed to rain,
- the instrument does not appear to operate normally or exhibits a marked change in performance,
- the instrument has been dropped or the cabinet has been damaged.
- Do not attempt to open the unit or make any change in the circuits or parts of the unit.

HANDLING AND TRANSPORT

- Never apply excessive force to the controls, connectors, pads or other parts of the instrument.
- Always unplug cables by gripping the plug firmly, not by pulling on the cable.
- Physical shocks caused by dropping, bumping, or placing heavy objects on the instrument can result in scratches and/or more serious damage.
- Carefully check the amplifier volume control before stating to play. Excessive volume can cause permanent hearing loss.

CLEANING

- Clean the unit with a dry or light-wet soft cloth. Do not use paint thinner or petrochemical based polishes.

LOCATION

Do not expose the drum to the following conditions to avoid deformation, discoloration, or more serious damage,

- direct sunlight (near a window),
- high temperatures (near a heat source, outside, or in a car during the daytime),
- excessive humidity,
- excessive dust,
- strong vibration.
- The drum contains digital circuitry and may cause interference if placed too close to radio or television receivers. If interference occurs, move the drum further away from the affected equipment.

POWER

- Turn the power switch off when the drum is not in use.
- To avoid damage to the drum and other devices to which it is connected, turn the power switches of all related devices off prior to connection or disconnection of audio cables.
- Turn the power off if the main cable is damaged or the instrument is spattered with liquid.
- Do not switch the unit on and off in quick succession, this places an undue load on the electronic components.
- Unplug the AC power cord during an electrical storm.
- Avoid plugging the AC adaptor into the same AC outlet as appliances with high power consumption, such as electric heaters or ovens.

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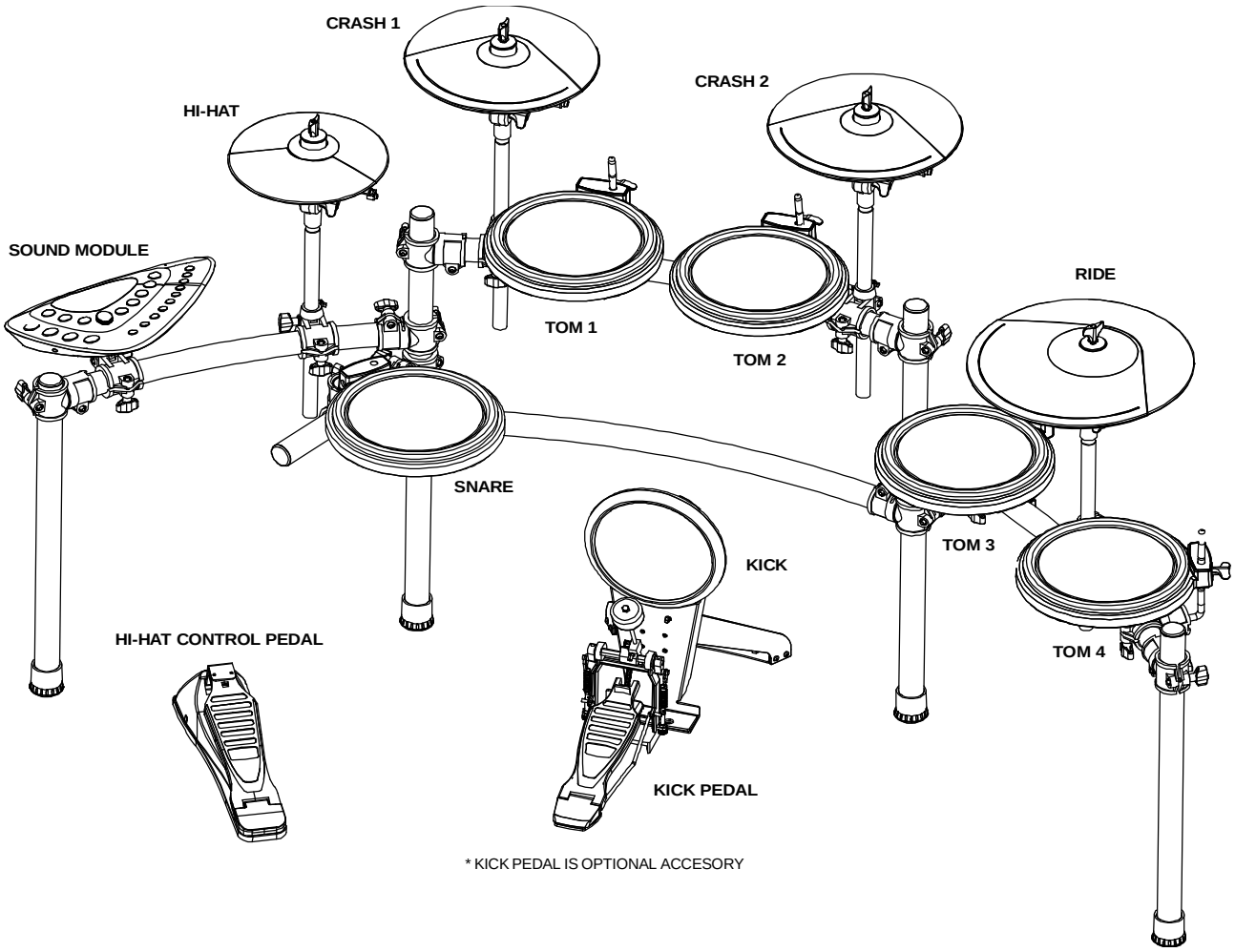
INSTALLATION



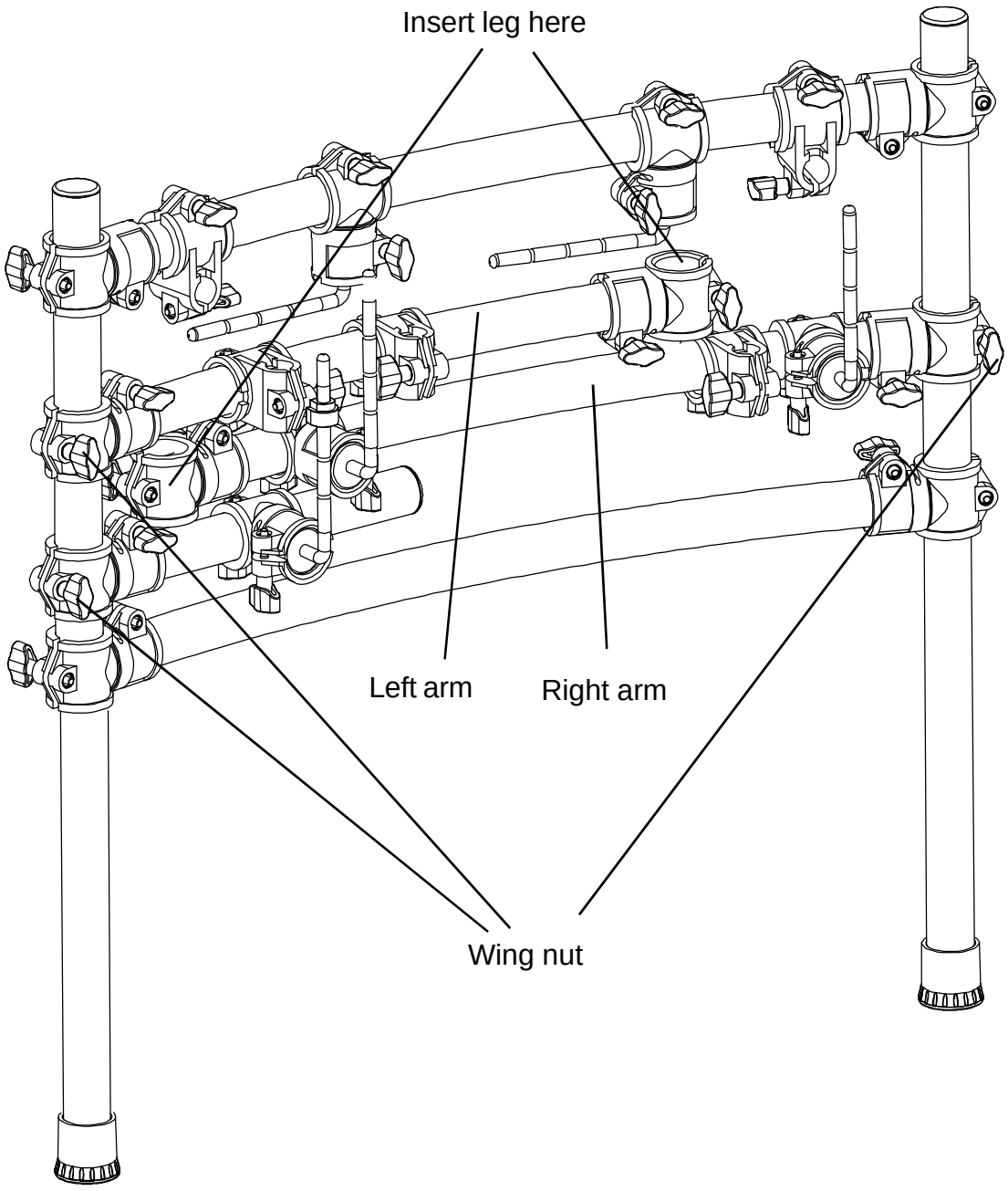
* KICK PEDAL IS OPTIONAL ACCESORY

The diagram shows complete drum kit after installation.

Power adaptor and connection cables are not shown in the diagram.

INSTALLATION

RACK INSTALLATION - 1

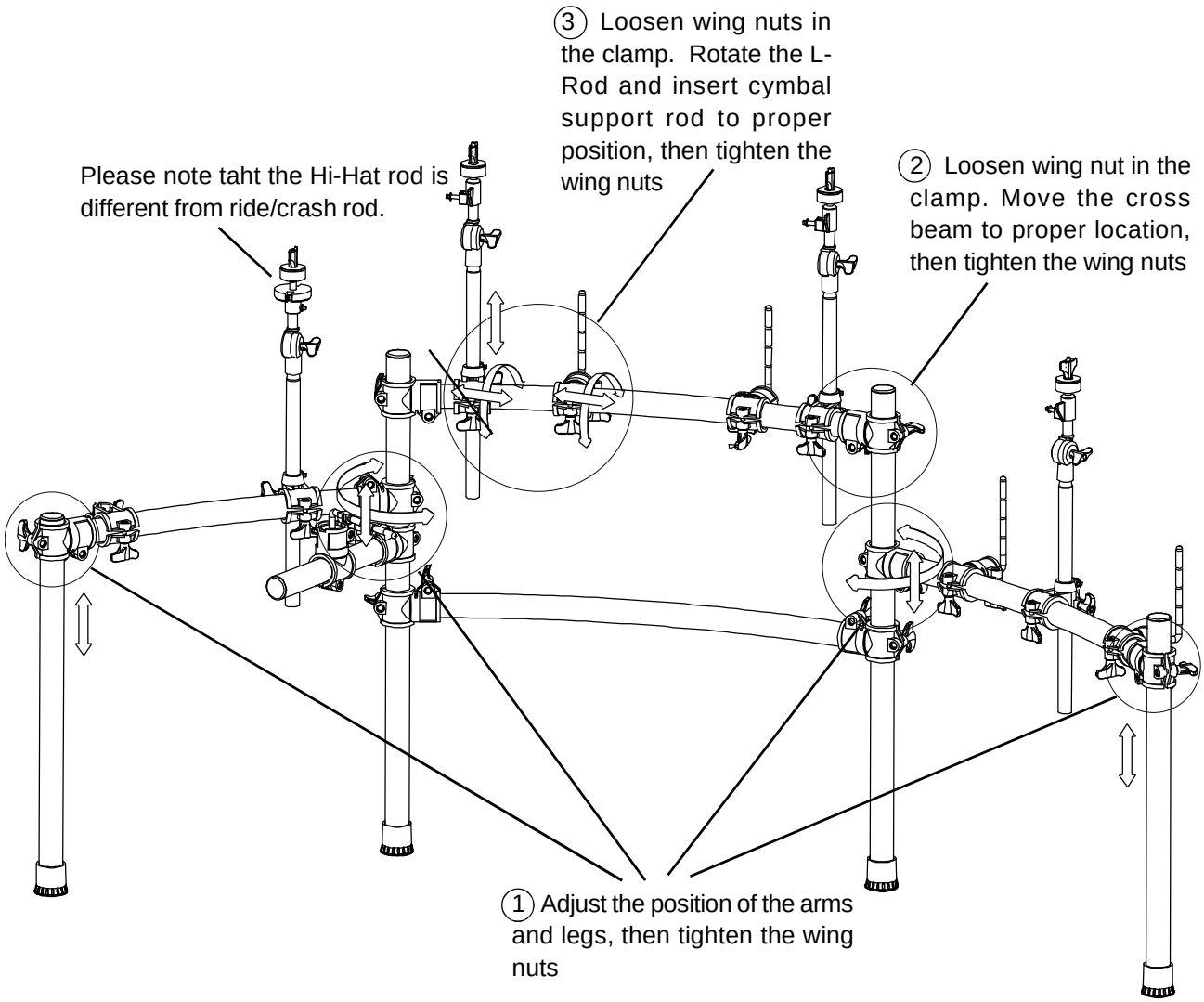


The rack system is pre-assembled and folded in the package as shown above.

Loosen the wing nuts indicated in the diagram; open the arms and insert legs into the clamp on the right and left arm.

INSTALLATION

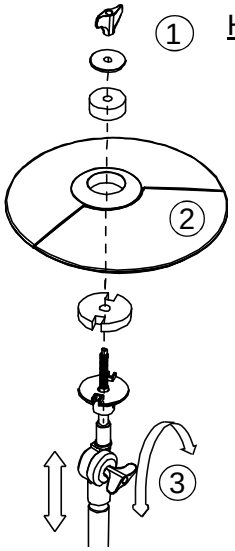
RACK INSTALLATION - 2


③ Loosen wing nuts in the clamp. Rotate the L-Rod and insert cymbal support rod to proper position, then tighten the wing nuts
Please note taht the Hi-Hat rod is different from ride/crash rod.
② Loosen wing nut in the clamp. Move the cross beam to proper location, then tighten the wing nuts
① Adjust the position of the arms and legs, then tighten the wing nuts

Adjust arm, leg and cross beam to proper position. Insert cymbal support rods into relevant clamp as shown in the diagram, then adjust their positions.

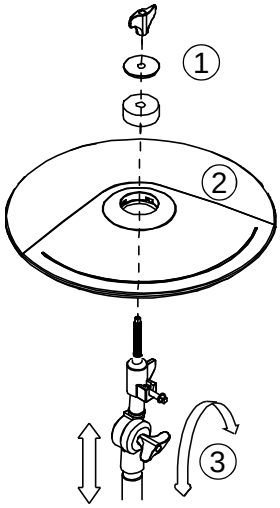
INSTALLATION

COMPONENTS INSTALLATION



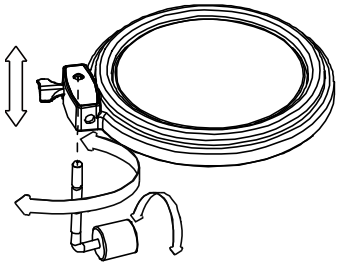
Hi-Hat Installation

1. Remove the wing nut, washer and felt pad from the top of the rod.
2. Put the Hi-Hat into the rod, then place back parts removed in the step 1. Fasten the wing nut but not too tightly. It allows the pad a little bit wobbling like real acoustic cymbal.
3. Adjust the pad position then re-tighten the wing nut.



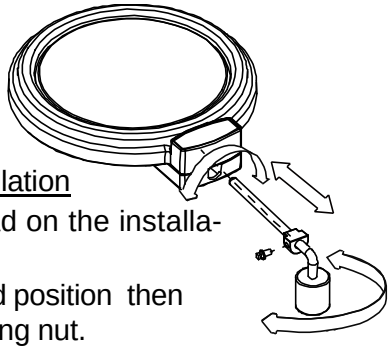
Crash and Ride Installation

1. Remove the wing nut, washer and felt pad from the top of the rod.
2. Put the cymbal pad into the rod, then place back parts removed in the stet 1. Fasten the wing nut but not too tightly. It allows the pad a little bit wobbling like real acoustic cymbal.
3. Adjust the pad position then re-tighten the wing nut.



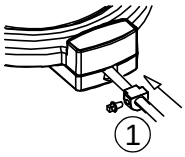
Tom pad Installation

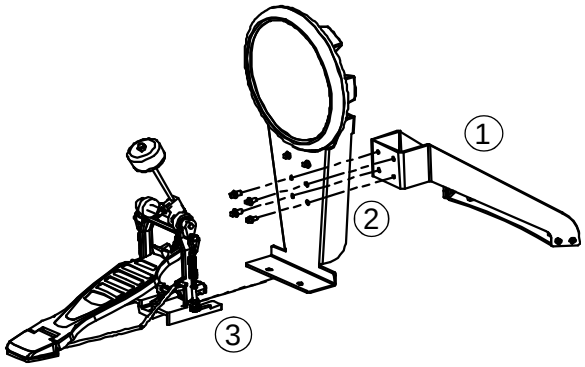
1. Pllace the pad on the installation L-Rod.
2. Adjust the angle and height of the pad then tighten the wing nut.



Snare pad Installation

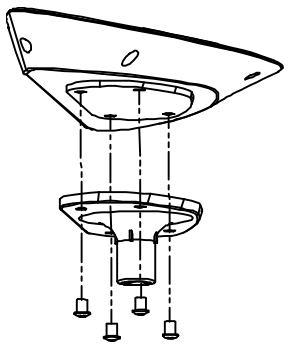
1. Pllace the pad on the installation L-Rod.
2. Adjust the pad position then re-tighten the wing nut.
3. Align holes in the pad and the lock-block (1), then in sert the block and fasten with attached key.





Kick Installation

1. Align holes in the support (1) and stand (2) then insert bolts and fasten with attached key.
2. Insert tongue (4) of the kick stand into slot of the pedal (3)
3. Align holes in the tongue and the pedal, then insert bolts and fasten with attached key.



Sound module Installation

1. Align holes in the sound module and the model mount then insert screws and fasten it.
2. Insert rod of the model mount into the clamp, then tighten the wing nut.

Finalizing the Installation

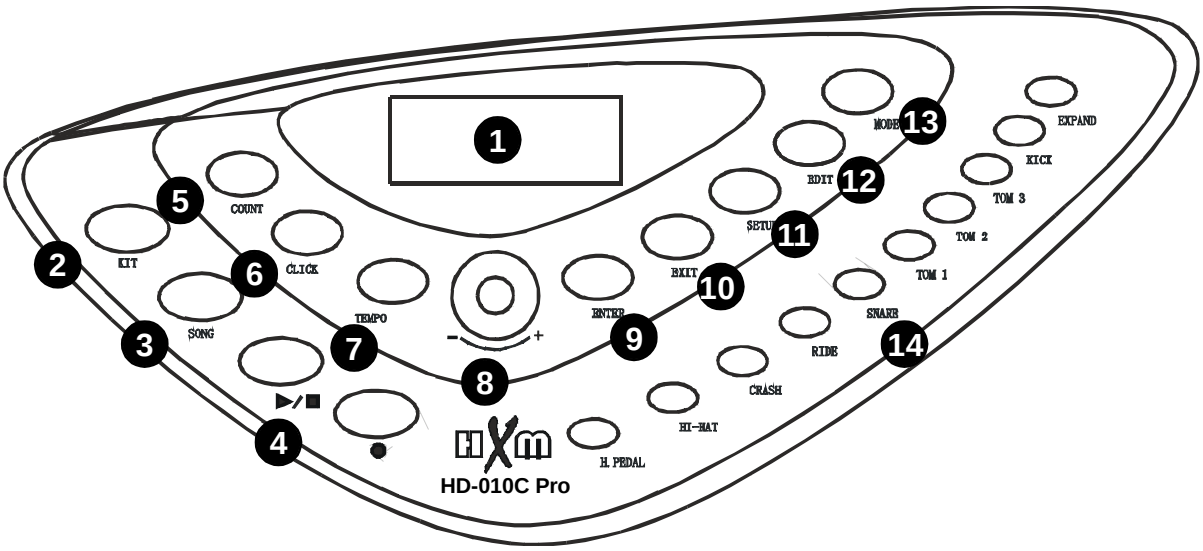
After install all components, fine adjust the arm, clamps and rods to the best position you desire.

Electronic Connection

Please refer to the SOUND MODULE Chapter for electronic connection.

SOUND MODULE

CONTROL PANEL



(1) LCD Display: Information display such as Kit number and name, Song name etc.

(2) KIT Button: Enter the Drum kit screen and select kit

(3) SONG Button: Enter the Song mode to play demo or User songs

(4) Sequencer Buttons: ● Record Button, Press it to enter the record window

▶/■ Play/Stop Button

The Play/Stop button is used in both Song and Record operations. Please refer to relevant chapters for detailed information.

(5) COUNT Button: Enter the Count mode to test how fast you can strike

(6) CLICK Button: Metronome switch and edit

(7) TEMPO Button: Change metronome tempo

(8) DATA +/- Knob: Rotate the knob to change data for all operations. The knob is with push switch, when push the knob down, the switch will be on. Press the knob down then rotate it to adjust master volume in the Kit Selection and Song window. Pushing down the knob can function as ENTER button.

(9) ENTER Button: Confirm your operating

(10) EXIT Button: Exit to the previous window or return to the Kit Selection window

(11) SETUP Button: Enter the Setup mode and set parameters

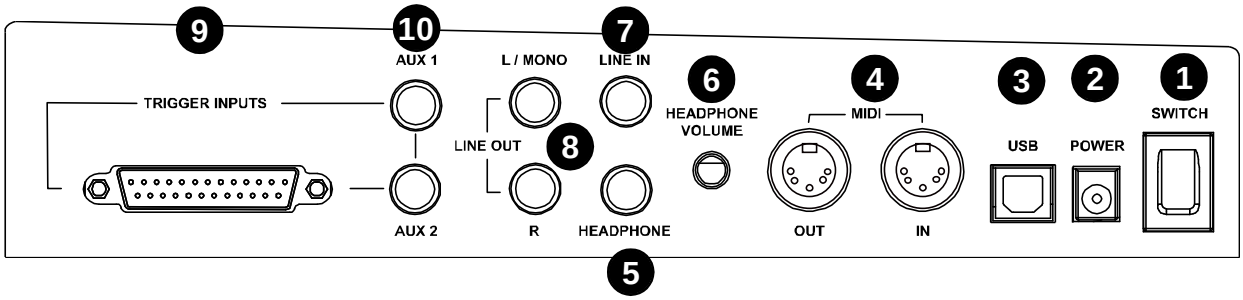
(12) EDIT Button: Enter the Kit Edit mode and edit parameters

(13) MODE Button: Change Demo playing mode

(14) Pad Select Buttons: Select a pad and its part for edit in the Edit mode. These are dual-function buttons. In the Kit Select mode, they are used for kit quick selection.

SOUND MODULE

BACK PANEL



(1) Power Switch: Turn On/Off the sound module
***Note*:** When you turn the power off, do not turn it on immediately. Wait at least five seconds to turn the power on so that the electronic circuits can properly reset.

(2) Power In Jack: Plug in the DC cable of the attached adaptor

(3) USB Jack: The USB connector allows you to connect the drum directly to your computer's USB port. The USB interface is compatible with Windows XP/Vista, Windows 7 and MAC. The computer will recognize the drum as Audio Device. Please see the MIDI & USB chapter of this manual for details

(4) MIDI Jack: MIDI jacks allow communication with other products equipped with MIDI interfaces. Please see the MIDI & USB chapter of this manual for details

(5) Headphone Jack: The drum has stereo headphone jack. You can play in total silence without disturbing others in the room by plugging a set of headphones into the jack.

(6) Headphone Volume Knob: Rotate it to adjust the headphone volume

(7) Line In Jack: Line In stereo audio input jack will mix the supplied signal with the internal drum sound. It can be used to hook up items such as CD players, MP3 player etc.

(8) Line Out Jack: There is no built-in speaker in the drum. Line Out stereo audio output supplies the drum output signal to external amplification, such as home stereo, PA system or other stand alone amplifiers. If you connect with external mono system, use L/MONO output and stereo/mono adapter is recommended.

(9) Pad Trigger Connector: Each pad and Hi-Hat control pedal has labeled cable. All cables are merged into a single connector. Plug in the cable into jack of corresponding component, Then, plug in the connector here.

(10) Expanded Pad Trigger Jack: Plug in the cable of the Tom4 into the AUX1 and the Crash2 into the AUX2.

PLAYIN PAD

TURN ON THE POWER

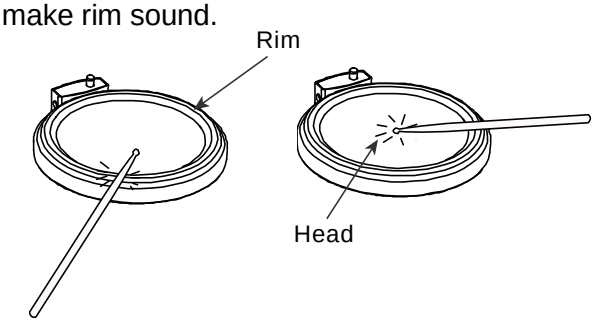
(1) Adjust volume of external audio device connected with the drum to lower level.
(2) Press the POWER button while don't strike pad or press the Hi-Hat control pedal.
(3) Turn on external devices connected.
(4) Strike pad and adjust the volume to proper level.

PLAYING PADS

All pads have striking force sensitivity feature. Strike the pad harder to make higher volume and strike the pad softer to make lower volume.

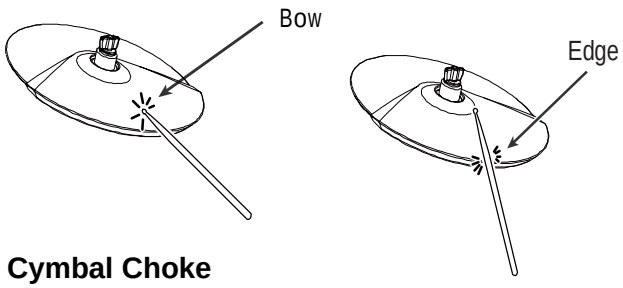
Playing Tom Drum

Strike the central position (head) of the pad to make head sound, strike the rim of the pad to make rim sound.



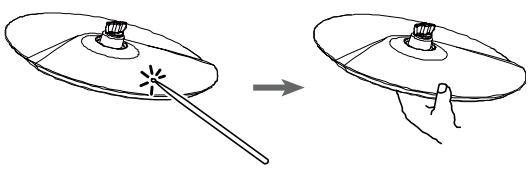
Playing Cymbal

Strike the central position (bow) of the cymbal to make cymbal bow sound, strike the edge of the cymbal to make edge shot sound.



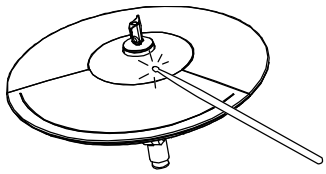
Cymbal Choke

Strike a cymbal, its sound will sustain. Then squeeze the edge portion to mute the sound.
Please note that the Hi-Hat has no choke feature.



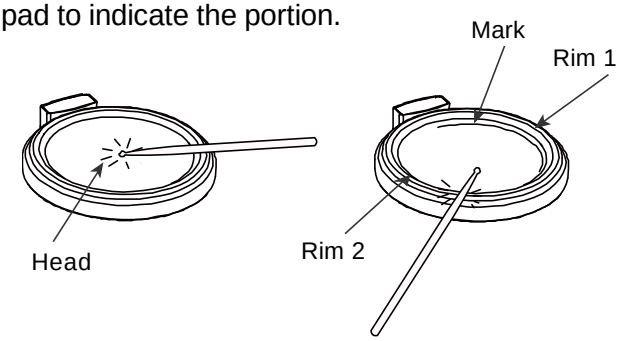
Playing Cymbal Bell

Strike the bell at the large ride cymbal make symbal bell sound.
The ride cymbal has this feature only.



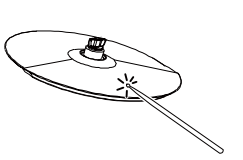
Playing Snare Drum

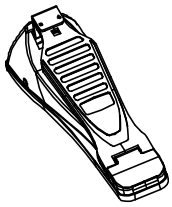
Strike the central position (head) of the pad to make head sound, strike the rim of the pad to make rim sound. There are two rim portions with different rim sound. Also, there is a mark on the pad to indicate the portion.



Playing Hi-Hat

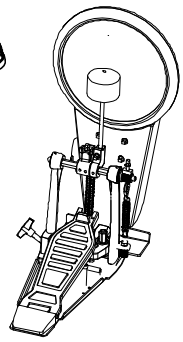
(1) Strike the Hi-Hat pad without pressing the Hi-Hat control pedal to make open Hi-Hat sound.
(2) Strike the Hi-Hat pad with fully pressing the Hi-Hat control pedal to make close Hi-Hat sound.
(3) Strike the Hi-Hat pad while pressing the Hi-Hat control pedal gradually to make consecutive open to close Hi-Hat sound.
(4) Press the Hi-Hat pedal down quickly to make Hi-Hat pedal sound.





Playing Kick Drum

Press the Kick drum pedal to make kick drum sound.



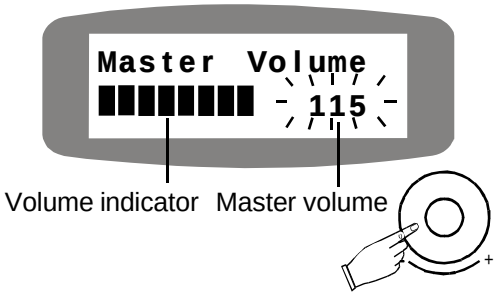
Layered Voice

Some voices have layer feature. Strike the pad softer to make a voice and strike harder to hear another voice. This kind of the voice indicated by * mark in the Appendix VOICE LIST.

VOLUME CONTROL

MASTER VOLUME

In the Kit and Song window, push the DATA knob to enter the Master Volume control window. The current volume level will be blinking. Rotate the DATA knob to change the master volume ranged 0 - 127. Press the EXIT button, or after about 5 seconds without any adjustment, it will return to the previous window.



HEADPHONE VOLUME

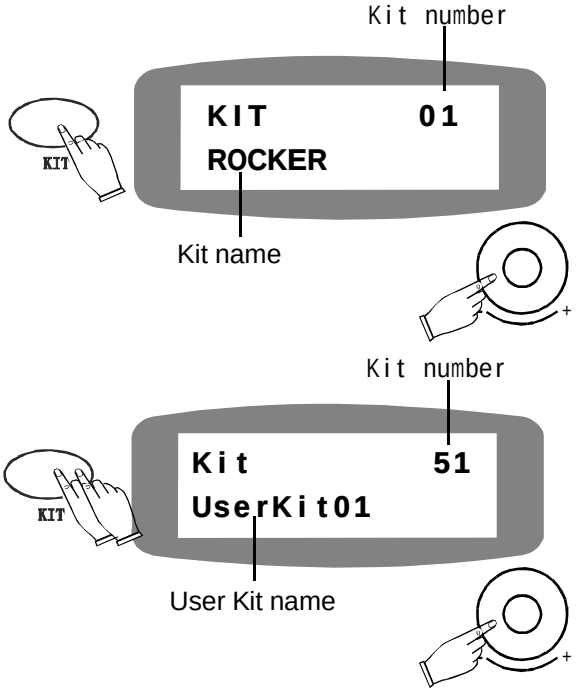
Adjust the headpnone volume by rotating the HEAD-PHONE VOLUME knob in the back panel.

DRUM KIT

There are 50 preset drum kits and 35 User Kits. The kit is combination of different instrument voice assigned to each pad which has unitary style for performance. All the kits are for your choice. Any kit could be edited and saved as your own User Kit.

After power on and display initial information, it'll enter the kit selection mode automatically while the KIT button indicator will light up. The kit number and its name will be displayed.

In some other operation modes, you may press the KIT button to enter the kit select operation mode.



PRESET KIT

The preset kit number is ranged 01 - 50.

Rotate the Data knob to select a kit you desire. Rotate the knob clockwise to increase the kit number and anticlockwise to decrease the kit number. All preset kit number and name are listed in the Appendix KIT LIST.

Note: Normally, striking the drum pad makes single sound. When you play the Tom rim or Kick with Kit 22/23/24/25/26, an additional voice will be added to the basic drum sound. The additional sound is composed in a sequencer for these specific kits. Each time you play the pad, the additional sound will change in sequence.

USER KIT

You can create your own user kit by edit function. Click the KIT button repeatedly will switch the Preset Kit and User Kit selection. The User Kit number is 51- 85; the User Kit name is UserKit01 - UserKit35.

Rotate the Data knob to select an user kit you desire in the same way above.

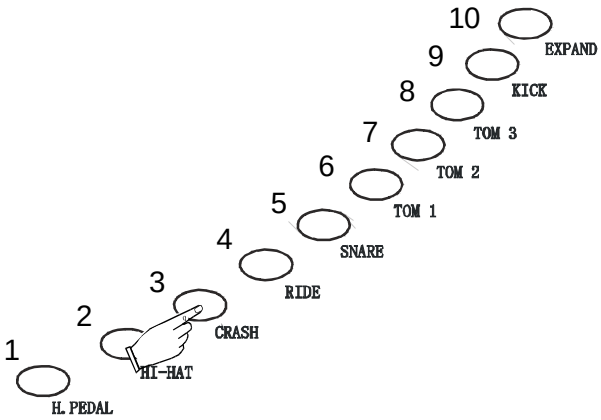
The factory setting for all User Kits is the same as preset kit 01. You could call them even if you don't create your own user kit. Of course, you could replace it by editing. Please see <EDIT> Chapter in this manual for details.

QUICK SELECTION

In the Kit mode, ten pad selection buttons are defined as quick kit selection buttons. Each one is assigned to a most common use kit. Simply press a button to select kit directly. The default quick selection assignment is listed in the Appendix <KIT LIST>.

After you select a kit, you can assign it to a quick selection button by pressing and holding down the KIT button then pressing a pad button.

Your assignment is nonvolatile even the power turns off.



Note: These buttons are dual-function buttons. When use them as quick kit select buttons, the indicator of the EDIT button must be off, Please see <EDIT> Chapter in this manual for details.

SONG

Press the SONG button and its indicator will lights up. The song window will appear. There are two types of song: Demonstration song and User Song which is recorded by yourself.

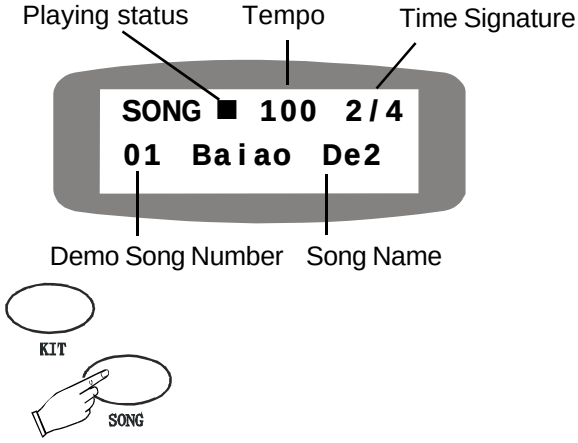
1. DEMO SONG

(1) Select and Play Demo Song

There are many demo songs built in. The name and number of demo song, playing status, tempo and time signature appear on the display. Rotate the DATE knob to choose a song.

Then press the ▶/■ button to start play; the button indicator lights up.

When the demo song is playing, press the button again to stop the playing, the▶/■ indicator turns off.



(2) Demo Song Playing Mode

There are four modes to play song:

PLAY 1 - Playing selected song once

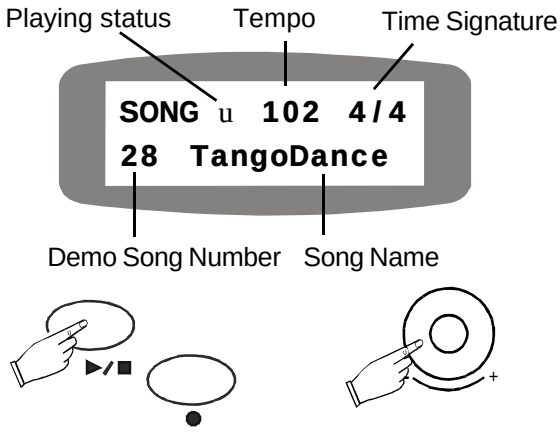
REPEAT 1 - Playing selected song repeatedly

PLAY ALL - Play all songs

REPEAT ALL - Playing all songs repeatedly

Press the SONG button twice to enter the play mode window. Rotate the DATE knob to change the playing mode.

The screen will turn back to the previous window automatically after about 3 seconds, or press the EXIT button to exit immediately.



(3) Practice with Demo Song

You may practice your own performance with the demo song.

There are three practice modes for yourchoice:

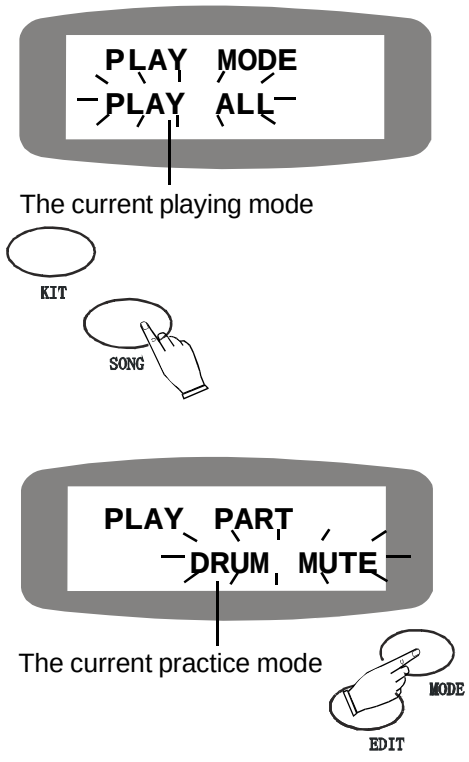
FULL - When press the ▶/■ button, you will hear complete song

DRUM ONLY - When press the ▶/■ button, you will hear drum sound only. It helps you to get idea how to perform drum.

DRUM MUTE - When press the ▶/■ button, you will hear background music without drum sound. Then, you can play drums by yourself.

Press the MODE button repeatedly to change the practice mode.

The screen will turn back to the previous window automatically after about 3 seconds, or press the EXIT button to exit immediately.

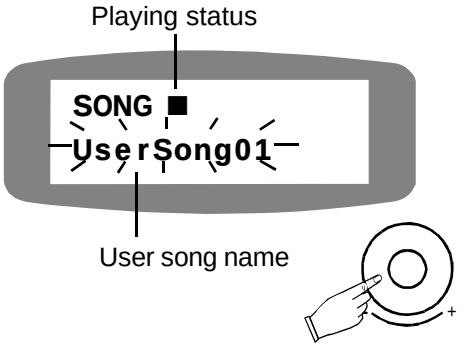


Tip: Volume of drum and background music is adjustable. Please refer to the Chapter <SETUP> for more information.

2. USER SONG

You can record your performance and save it as User song. When select song by the DATE knob, after the last preset demo song, the next song followed will be the first User song. HD-010C Pro can record 15 User songs.

Tip: You may rotate the the DATE knob anticlockwise to reach User Song faster.

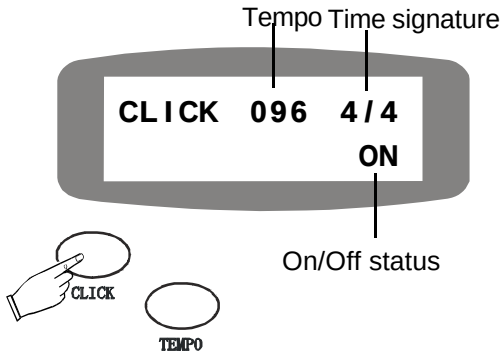


The display will show song name and playing status. If there is no user song recorded, it will show "*Free*".

The way of the User song playing is the same as Demo song playing. The playing mode is also available for User song.

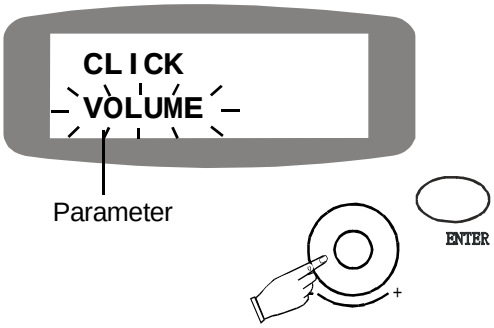
METRONOME

1. METRONOME



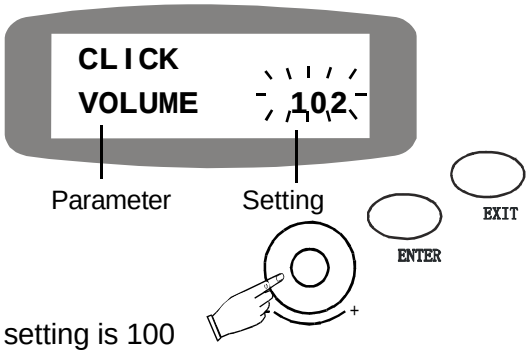
Press the CLICK button to switch the metronome On/Off while the current tempo, time signature and On/Off status will be displayed. After about 5 seconds, this window will exit automatically.

In the metronome window, press the ENTER button or push down the Date knob to enter the metronome setting window. There are 2 parameters can be edited, they are metronome volume, time signature and metronome sound. Rotate the DATA knob to choose a parameter to edit then press the [ENTER] to confirm. The parameters are listed below.



NOTE: **Push the Data knob as a button can implement the same function as press the ENTER button in many occasions. This is an easier way to enter your setting. In this manual, press the [ENTER] means press either the ENTER button or the DATA knob.**

Rotate the DATA knob to change the setting as listed below. Press the EXIT button to exit the and back to the metronome parameter select window; press the EXIT button again to exit the metronome window.

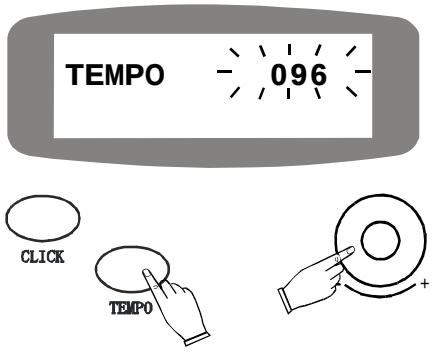


Metronome Parameters:
VOLUME - Metronome volume ranged 0 - 127, the default setting is 100
TIME SIGNATURE - 1-12/2, 1-12/4, 1-12/8, 1-12/16, The default setting is 4/4

2. TEMPO

Press the TEMPO button, the current tempo value will blink. Rotate the DATA knob to change the tempo ranged 20 - 260. The default is 105.

After about 3 seconds, it will return to the previous window automatically.



DRUM KIT EDIT

A drum kit consists of drum pads, cymbals pads and Hi-Hat pedal physically, which generate sound in different way such as by striking head or rim of drum pad, striking cymbal bow or edge, pressing Hi-Hat pedal. We call the source to generate sound as Part, for example, the part generating sound by striking the head of Tom 1 pad is displayed on the screen as Tom1, the part generating sound by Hi-Hat control pedal is displayed on the screen as Pedal Hi-Hat etc. The detailed description is listed in Table 1 below.

Each part has multi parameters to determine its sound characteristics such as voice, volume, reverb level and pan etc. These parameters are listed In Table 2.

Table 1

Tom1 - Head of Tom1	Crash - Head of Crash
Tom1-R - Rim of Tom1	Crash-R - Edge of Crash
Tom2 - Head of Tom2	Ride - Head of Ride
Tom2-R - Rim of Tom2	Ride-R - Edge of Ride
Tom3 - Head of Tom3	Ride-B - Bell of Ride
Tom3-R - Rim of Tom3	Open HiHat - Hi-Hat open
Tom4 - Head of expended Tom	Close HiHat - Hi-Hat close
Tom4-R - Rim of expended Tom	Pedal HiHat - Hi-Hat Pedal
Snare-R1 - Rim1 of Snare	Kick - Kick
Snare-R2 - Rim2 of Snare	Crash2 - Head of expended Crash
Snare - Head of Snare	Crash2-R - Edge of expended Crash

The edit feature is to set parameter for each part, partly or for all parts in a kit. Obviously, assigning voice to the part is most impotant function. This drum has totally 492 voices can be select and assigned with this function.

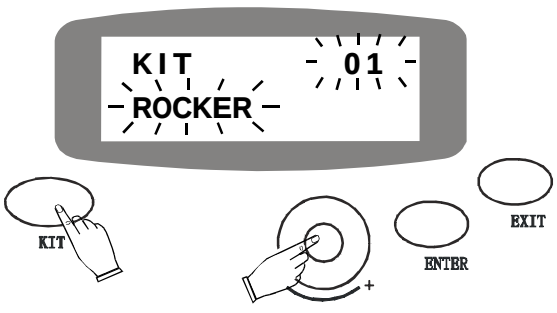
This feature makes it possible to change the currently selected drum kit setting. In this way, you may create your own drum kit and save it as UserKit.

The edit procedure is the same for every parameter, after you are familiar with the operation of voice assignment; it'll be easy to edit other parameters.

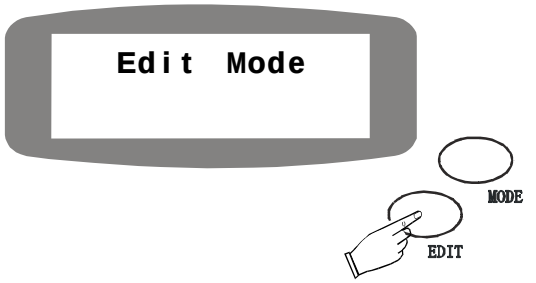
The following section is the edit procedure taking example how to change voice for a pad.

1. Select kit for editing

Select a kit for editing in the same way explained in the DRUM KIT chapter. The display shows the kit number and kit name.

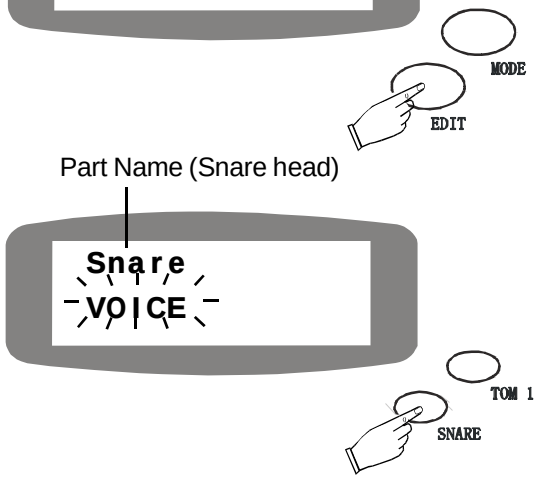


2. Enter the Edit Mode
Press EDIT button to engage the edit mode. The indicator will light up.



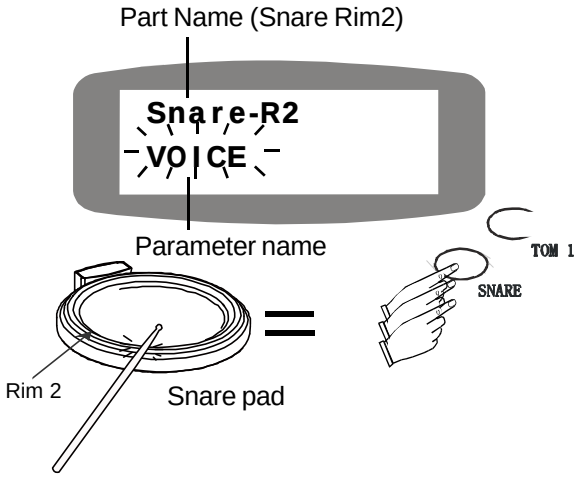
3. Select part to edit
Press a pad selection button to select a pad. Some pads have two or more parts, for example, the snare have head, rim1 and rim2 parts. The default part for a pad is head or bow.

Press the pad selection button repeatedly and the part will switch within valid parts one by one. For example, press the SNARE button once, the part is Snare (Head); press the SNARE button twice, the part changes to Snare-R1; press the SNARE button again, the part will change to Snare-R2. The part name will apear on the first row of the display. Please refer to Table 1 for details.

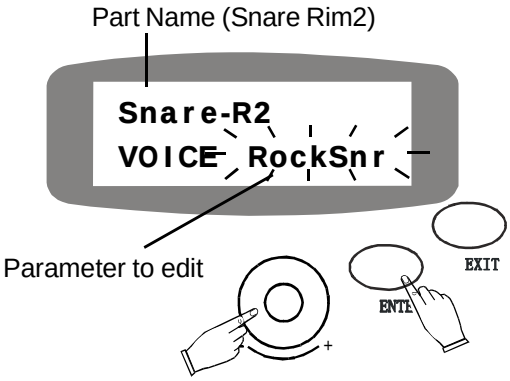


Note: Use the EXPAND button to select Tom4 and the Ride. Press the EXPAND button repeatedly, the part name will change one by one until the part you desire appears. Please refer to Table 1 for details.

Or, simply strike the proper portion of a pad with normal strenth to select the part directly. Select the Hi-Hat control pedal by pressing it down to the bottom.



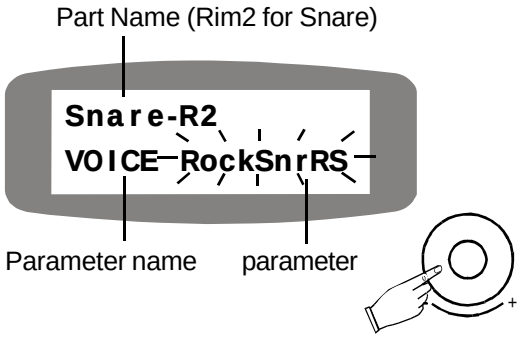
4. Select parameter to edit
The current parameter is blinking. Rotate the Data knob to select a parameter to edit. In this example, select VOICE.
Press the ENTER button or push down the Date knob to confirm you choice. The current value/contents of this parameter will blink.



NOTE: **Push the Data knob as a button can implement the same function as press the ENTER button in many occasions. This is an easier way to enter your setting. In this manual, press the [ENTER] means press either the ENTER button or the DATA knob.**

5. Edit the parameter

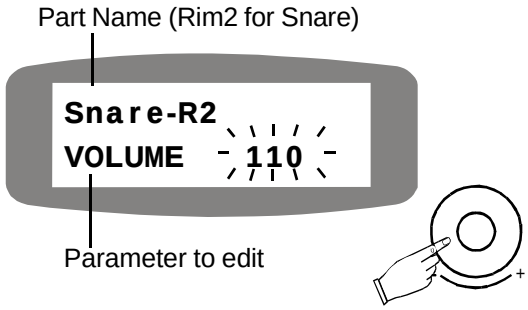
Rotate the Data knob to change value/contents of the parameter. In this example, you'll change voice assigned to Snare-R2. Any parameter has its own range to set. For example, there are 224 voices can be selected to assign to a part, referring to Appendix VOICE LIST.



Note: When you edit the voice for the Tom rim or Kick with Kit 22/23/24/25/26, the additional voice in the sequencer will not be changed. ???

6. Edit another parameter or part

Now, the first parameter (the VOICE in this example) editing for a selected part is finished. You may continue to edit other parameters for this part or change part to edit.



(1) Edit other parameter in the current part

Press the EXIT button, the screen will back to the parametr selection window with the parameter name blinking. Then, select a part by rotating the DATA knob. Then, edit parameters in the same way above.

Parameters can be edited are listed below:

Table 2

PARAMETER	DESCRIPTION	EDIT RANGE
VOICE	Voice assigned to the part	1 – 224
VOLUME	Volume of the part	0~127, 127 refers to the highest volume
PAN	Stereo pan of the part	-64~63, 0 refers to centre position, -64 to the most left and 63 to the most right position
PITCH	Pitch of the part	-10~10, 0 refers to standard pitch, -10 to the lowest and 10to the highest pitch
REVERB	Reverb effect level of the part	0~127, 127 refers to the highest level

(2) Edit another part

Press the one of the pad selection button and its indicator will light up. The part name will display on the screen. The current parameter to edit will keep no change. In this way, you could edit the same parameter (it is Voice in this example) for each part. Press the same button repeatedly to switch to another part, if necessary.

Or, simply strike the proper portion in the real pad to select the part directly.

The drum kit still keeps no change in all operations above.

7. Complete the edit

After finish all editing for the current drum kit, no matter single or multiple part/parameter, you can terminate the edit.

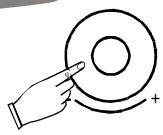
Press the EXIT button repeatedly until “Save Setups to ” on the screen. Then, you have two choices:

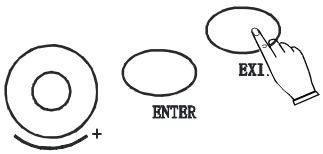
(1) Save edited drum kit as your own user kit: Rotate the Date knob to select an user kit number ranged 51 UserKit 01 to 85 UserKit 35. Press [ENTE] to confirm. The edited results are saved as desired User kit then exit the edit mode and return to the Kit window.

The user kit setting is nonvolatile even the power turns off.

(2) Press the EXIT button to exit the edit mode and return to the Kit window. All the edited results will be discarded.

Select a User kit to save your edit results





STRIKING COUNT

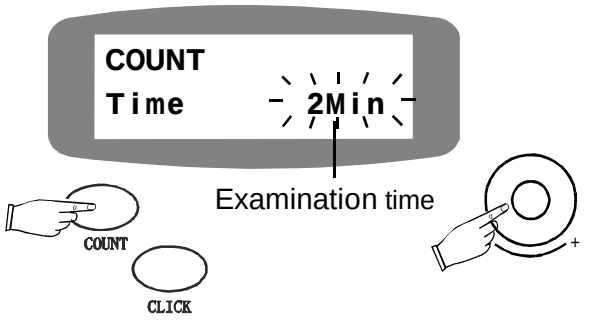
This feature allows you to test how fast you can strike pad. Press the COUNT button to enter the striking count window.

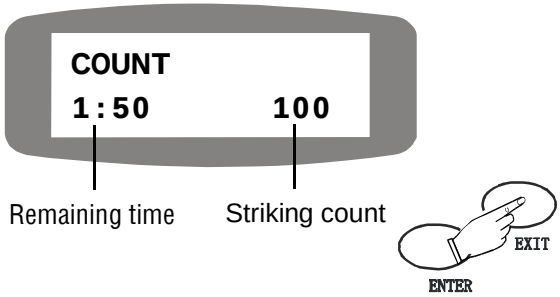
The examination time could be 1 minute, 2 minutes or 3 minutes. Rotate the DATE knob to select time.

The count will start as soon as you strike any pad. Count and remaining time will be displayed on screen. When time is over, You'll hear reminding sound for about one second and the remaining time is 0. Then you can check the results.

Press the EXIT button to exit this function.

Tip: The striking sensitivity cab be adjusted. Please refer to the Chapter <SETUP> for more information.





SETUP

Press the SETUP button to enter the setup mode and its indicator lights up. The Setup window will appear with the item to be setup and its current value. The item name will blink. Rotate the DATA knob to select one of the 8 items below, press the [ENTER] to confirm. The item name will stop blink and its parameter value will start blink. Then, you can change parameter value.

Press the [ENTER] to confirmyour setting and turn to the next item, or press the EXIT button to cancel the setting and back to the item selection window.

In the SETUP item selection window, press the EXIT button to turn to the Kit window..

1 Accompaniment Volume
When play demo song, you'll hear percussion performance accompanied by background music. The parameter for the accompaniment volume is BACK VOLUME. Rotate the DATE knob to change the volume ranged 0 - 24.

2. Percussion Volume for Demo Playing
When play demo song, the parameter for the volume of percussion section performance is KIT VOLUME. Rotate the DATE knob to change the volume ranged 0 - 24.

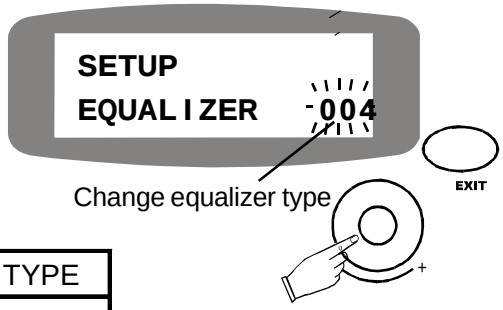
3. Master Tune
This parameter affects sound pitch globally. In the "MASTER TUNE window, Rotate the DATE knob to change the master tuning ranged -50 - 50. 0 refers to standard 440 Hz frequency for A4 note.

4. Count Sensitivity
The parameter for the sensitivity of the striking count test is COUNT SENS. Rotate the DATE knob to change the sensitivity ranged 0 - 24. It is suggested to set the sensitivity lower than your normal performance.

5. Local
When Local is On, you can hear sound by headphone or external speaker. When it is Off, built-in sound engine is turned off; therefore you cannot hear sound but the drum transmits MIDI message of your playing. Rotate the DATE knob to switch On/Off status. The default setting is On.

6. Equalizer

Tone of the drum can be adjusted globally by built-in Equalizer. There are 10 types of preset equalizer listed below.The parameter for select the equalizer type is EQ. Rotate the DATE knob to change the type code of the equalizer ranged 1 - 10.



No.	EQUALIZER TYPE	No.	EQUALIZER TYPE
1	Normal 1	6	Bright Mid
2	Normal 2	7	Bright
3	Bass Boost	8	Bright High
4	Bass Mid	9	Moderate 2
5	Moderate	10	Bright Mid 2

Press the EXIT button to turn back to the item selection window.

7. Advanced Parameter Setup

Chapter DRUM KIT EDIT introduces the sound edit procedure. The purpose of the sound edit is to change sound characteristics such as voice, volume, pan etc. The objects of advanced parameter edit are physical characteristics of pad such as sensitivity, trigger curve etc.

Any parameter is assigned for each pad individually. You must select a pad to edit. The default pad is Tom1. You can select pad to setup by pressing the pad select button or striking the pad directly.

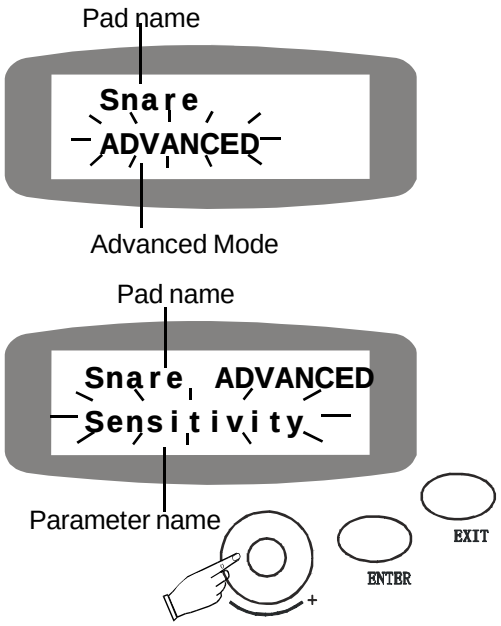
Note:

1. There is no alternative part such as rim, edge can be selected. It is different from part selection procedure in DRUM KIT EDIT. Also, you can select pad by hitting any part of the pad.
2. The procedure of the Hi-Hat control pedal setting is introduced in **Hi-Hat Pedal Setting** section separately.

After ADVANCED item is selected by the DATA knob and press the [ENTER] to confirm, you can select pad to setup by pressing the pad select button or striking the pad directly.

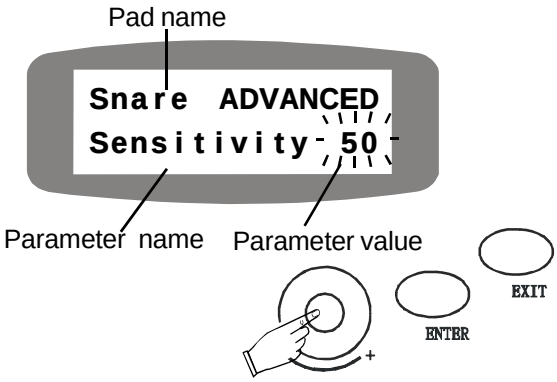
Press the [ENTER] to confirm your pad selection. The advanced parameter will appear and blink.The default parameter is Sensitivity.

Rotate the DATA knob to select parameter. Press the [ENTER] to confirm. Its current value will appear and blink. Then, edit the parameter value by rotating the DATA knob. Press the [ENTER] to confirm your setting and turn to the next parameter. Press the EXIT button to give up current operation and back to Advanced parameter select window.



Tip: You can try setting results in real time.

There are 4 advanced parameters can be setup in the way described above.



Sensitivity

The pad sensitivity is ranged 1-127. Rotate the DATA knob to change it. The higher value represents the higher sensitivity. Please note that if the sensitivity is too high, it'll cause unexpected sound even if you don't strike the pad.

Headroom

This feature allows you to set playing strength for reaching the maximum volume, to accommodate your personal taste of performance. Strike the pad with strength, with which you want to get the maximum volume.The value will appear automatically per your striking, the Max. value is 127.

Trigger Curve

The trigger curve refers to how trigger signal's dynamic response relates to your pad striking. This feature allows you select a proper curve from 6 preset curves to control the relation between the striking strength and volume change. Change the curve until the response feels as natural as possible.
Rotate the DATA knob to choose a curve. The corves you may select are Linear, Exp1, Exp2, Log1, Log2 and Spline. The default curve is Linear.

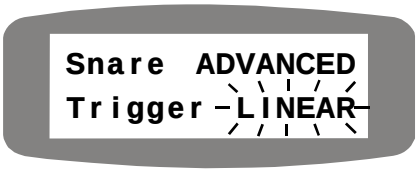
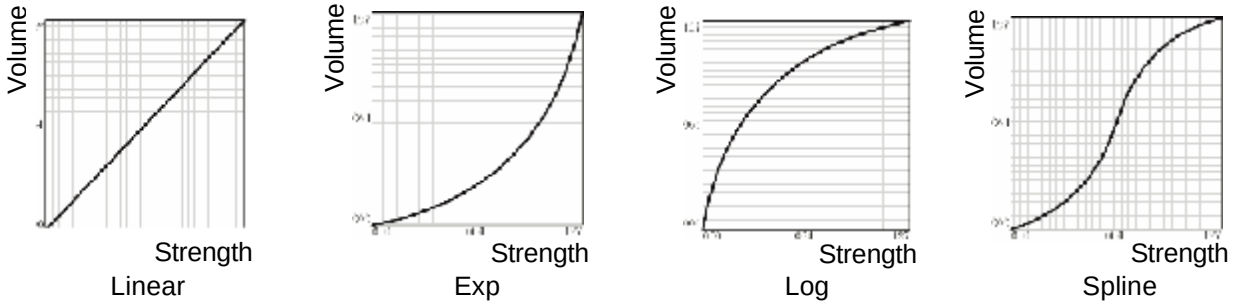
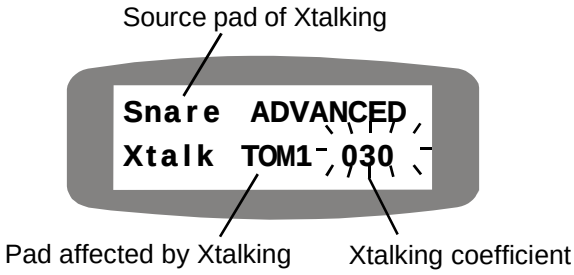


Diagram of 4 types of the curve



Cross Talk

When strike a pad, other pad(s) may sound occasionally. It is called cross talk. This feature allows you to eliminate the cross interference among the pads. The pad desplayed in the first row of the screen is source of the cross talk which cross-fire other pad(s), i.e. when strike this pad, other pad(s) will sound. This pad is that you selected for setup. The procedure of eliminating the cross talk is:



- Select a pad which is affected by cross talking by pressing a pad select button or strike a pad with middle strenth.

- Rotate the DATA knob to change the cross talk coefficient ranged 0 - 127. The larger value will reduce unexpected cross talking sound, but too large value will cause sound missing. You should balance it carefully.

- Press the [ENTER] to confirm your setting. The display will stay on the Cross Talk setting for the current source pad. You could select another pad which is also affected by the current pad and continue your setting.

- Press the EXIT button to exit current operation and back to Advanced parameter select window.

Hi-Hat Pedal Setting

Strike the Hi-Hat pad without pressing the Hi-Hat control pedal to make open Hi-Hat sound.

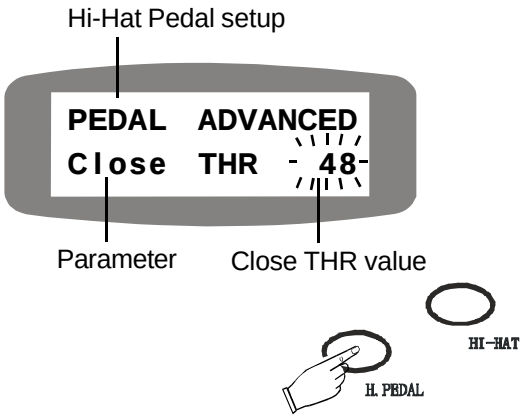
The Hi-Hat pedal has two zones of sound control, which is divided by Close Threshold point. Strike the Hi-Hat pad while pressing the Hi-Hat control pedal gradually to make consecutive open to close Hi-Hat sound when pedal pressing position is higher than closs threshold. When pedal position is lower than close threshold, striking the Hi-Hat pad makes close Hi-Hat sound.

When press the pedal quickly and reach the pedal threshold point, it'll make Hi-Hat pedal sound even don't strike the Hi-Hat pad. The pressing pedal is quicker, the volume is higher. This bottom position is called Pedal Threshold.

The scale of Hi-Hat pedal movement is 0 - 127. The top position of the pedal is defines as 127 and bottom is 0.

This feature allows you to set thresholds per your comfortable pressing strength.

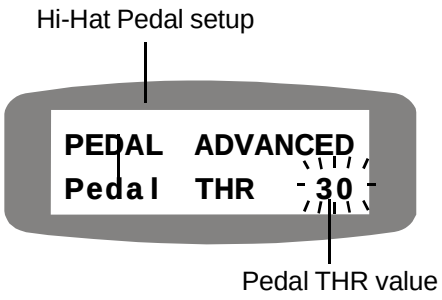
The Hi-Hat pedal setting is different from other pads. When select Sensitivity paramete, press the H.PEDAL button, the pad name will be Pedal. The first parameter is Closs THR and its current closs threshold value will be shown and blinking.



Then, press the pedal to position you desire as closs threshold while the real threshold value will be shown and blinking.
Press the ENTER button to confirm and turn to the bottom threshold setting; the parameter is Pedal THR.

Then, set the Pedal threshold in the same way above.

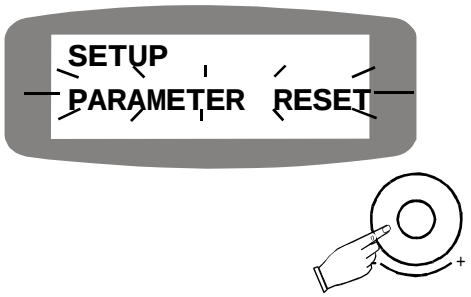
Press the ENTER button to confirm.
Press the EXIT button to exit current operation and back to Advanced parameter select window.



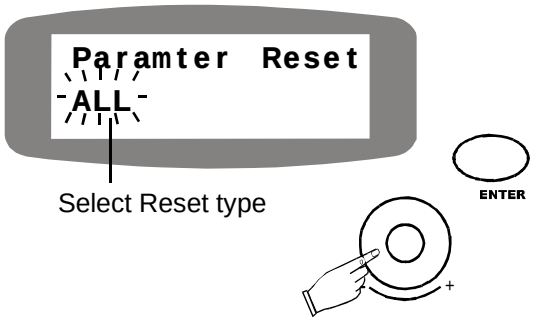
In the Advanced parameter select window, press the EXIT button to back to the SETUP item selection window. If you did some changes during the Advanced setting, the changes will be saved automatically. The display will say “Saving...”.
The settings saved is nonvolatile even the power turns off.

8. Reset

After setup, kit editing and recording, all of changes are saved in the unit. This feature allows you to recover the factory settings.
Select PARAMETER RESET in the SETUP parameter selection window then press [ENTER]. The reset window will appear.



There are four reset modes:
Kits - Reset sound parameters in all User kits which changed during the kit editing.
Parameter - Reset changes in Setup operation, except Advanced setting
UserSong - Erase all songs recorded by user
All - Besides reset all items above, it also reset physical parameters changed during the Advanced setting.

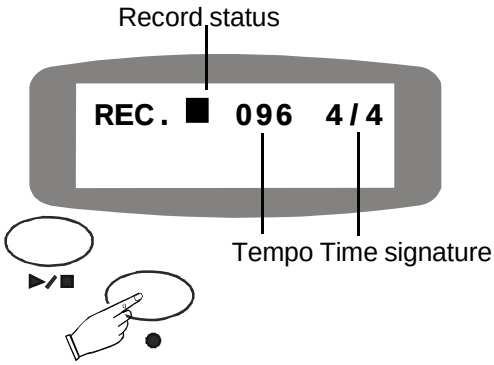


Rotate the DATA knob to select mode then press [ENTER]. The dialog screen will appear.
Press the ENTER button to confirm or press the EXIT button to cancel the reset operation and back to the Advanced parameter select window.

NOTE: Don not strike any pad after press the ENTER button until the KIT indicator lights up. It needs couple of second.

In the Reset mode selection window, press the EXIT button to back to the Advanced parameter select window.
In the Advanced parameter select window, press the EXIT button to turn to the SETUP item select window.

Press the ● button to enter the record window. The ● indicator will blink and the current tempo, time signature and record status are shown on the screen. Now, it is ready for recording. You may start record right now by pressing the ▶/■ button. Or, you could make necessary setup for your record. If you want to start record with the current setting, please skip the step 1 “Preparing”.



1. Preparing

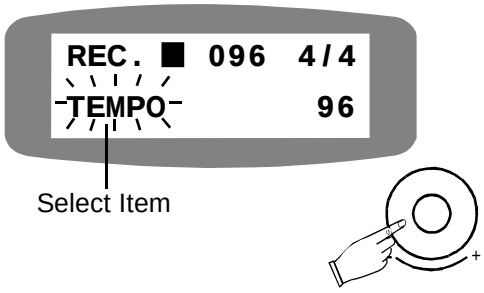
As soon as you rotate the DATA knob, setup item will appear and blink. Roate the DATA knob to select item you want to setup, then press the [ENTER] to confirm. The value of the parameter will blink. Items can be setup are as follws.

(1) TEMPO - It is the tempo for recording ranged 20 - 260. Rotate the DATA knob to change it.

(2) P-TEMPO - It is the tempo for playing back your recording ranged 20 - 260. It makes it possible that play with slower speed when recording and playback with faster tempo. Rotate the DATA knob to change it.

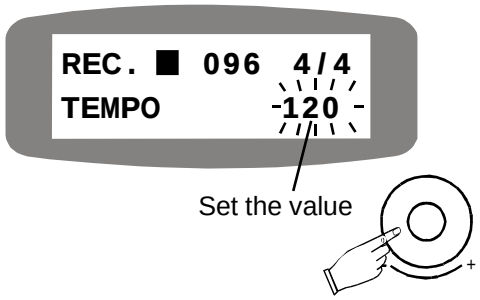
(3) TIME-SIG - The time signature for the metronome. Rotate the DATE knob to choose one you desire. Please refer to the <METRONOME> chapter of this manual.

(4) METRO - Metronome On or Off during the record. Rotate the DATE knob to switch On and Off.



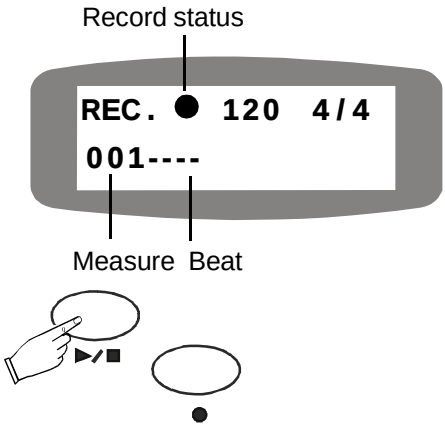
Tip: If you don’t need to set some items, simply press the [ENTER] to jump to the next item.

After seting, press the EXIT button to back to the preparing window. Press the EXIT button again to the record window. You can start record under both windows.



2. Record

Press the ▶/■ button to start record. The ● indicator will stop blinking and keep lighting.
After 4 beats count-in, the record starts immediately, no matter you start play or not. The record measure count will appear on the display. Also, the current beat in the measure will be displayed with numbers of “----” mark.



Press the ▶/■ button again to stop the recording. The screen will go to the save window. The Max measure can be recorded is 255, When the measure counter reaches the Max, the screen also goes to the save window.
In the save window, a song name for saving your record will blink. You may rotate the DATE knob to choose song name. Press the [ENTER] to save recorded song, press the EXIT button to turn to the Kit window without saving.

If the song name was already used for the previous recording, it'll ask you do you want to replace it with the new recording? Press the [ENTER] to save it the turn to the Kit window, or press the EXIT button to back to the previous window for selecting another song name.

The unit can record 15 User songs.

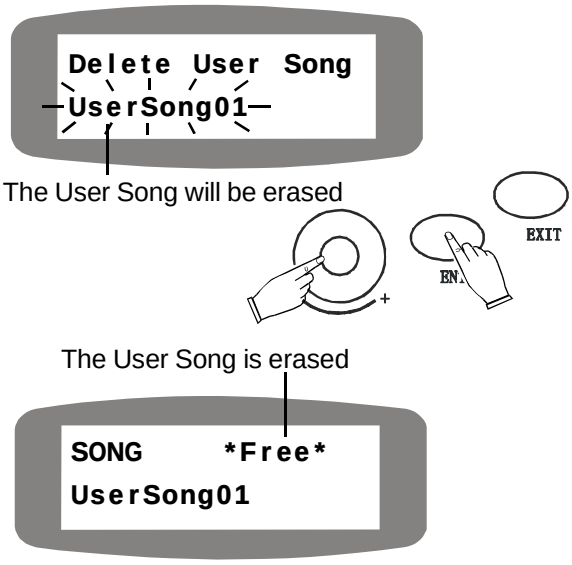
3. Play back User Song

In the saving window, press the ▶/■ button to playback your recording. Press the ▶/■button again to stop the playback.

In the Song window, you could also select recorded user song to playback. Please refer to the <SONG> chapter in this Manual.

4. Erase User Song

Press the SONG button to enter the Song window. Select a recorded User song then press the [ENTER] to enter the User Song Delete window. The User Song name will blink. Press the [ENTER] to erase the song and "Free" will appear to indicate that this song is erased successfully.
Or, press the EXIT button to cancel the delete operation and turn to the Kit window.



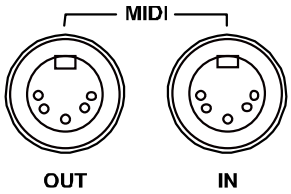
MIDI & USB

MIDI refers to Musical Instrument Digital Interface. This is a world wide standard communication interface that enables electronic musical instruments and computers to communicate each other so that musical message can pass between them. This exchange of information makes it possible to create a system of MIDI instruments and devices that offers far greater versatility and control than is available with isolated instruments. Whether you interface with computers, sequencers, expanders or other equipment your musical horizons will be greatly enhanced. For instance, you can edit your playing in computer or playback MIDI song from computer while play the drum.

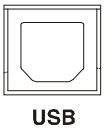
MIDI - The MIDI connector allows you to connect the drum directly to another MIDI divice.

1. **MIDI In**: This terminal receives MIDI data from an external MIDI device.

2. **MIDI Out**: This terminal transmits data from this instrument to other MIDI devices. The transmitted data includes the note and touch velocity produced while playing on the drum, as well as voice changes and recorded playback. Demo songs not transmitted.



USB - The USB connector allows you to connect the drum directly to your computer. It can connected without driver installation under the Windows XP, Windows Vista, Windows 7 & MAC OSX environment. The drum will be recognized as USB Audio device to receive and transmit the same MIDI messages described above.



MIDI APPLICATION CHART

Function	Transmitted	Recognized	Remarks
Basic Channel	10	1-16	
Note Number	0-127	0-127	
Velocity: Note ON	1-127	1-127	
Note OFF	64	0-127	
Major Controls:			
B9h 04h xxh	Yes	X	Hi-Hat pedal control
Bxh 79h 00h	Yes	Yes	Reset All Controller
Bxh 7Bh 00h	Yes	Yes	All Notes OFF
Program Change	X	Yes *	
System Exclusive	Yes	Yes **	
RPN	X **	Yes **	
NRPN	Yes	Yes **	

* Chanel 10 supports Bank 0 only

** If you need detailed information about Exclusive, RPN and NRPN, please contact your vender

Note: Transmited note through chanel 10 for each pad if fixed as below:

PAD	NOTE		PAD	NOTE
Tom1	48		Crash2	57
Tom1 Rim	62		Crash2 Edge	52
Tom2	45		Ride	51
Tom2 Rim	63		Ride Edge	59
Tom3	41		Ride Bell	53
Tom3 Rim	64		Hi-Hat Open	46
Tom4	43		Hi-Hat Close	42
Tom4 Rim	76		Hi-Hat Pedal	44
Snare	38		Kick	36
Snare Rim1	37		Ride Mute	6
Snare Rim2	40		Crash Mute	7
Crash	55		Crash2 Mute	5
Crash Edge	49			

KIT LIST

Kit No.	Kit Name
1	ROCKER
2	FUNKADELIC
3	POPIN
4	BLUE BAY
5	MASSIVE
6	VINTAGE
7	INFERNO
8	DIABOLIC
9	ELECTRO
10	DANCECORE
11	MATRIX
12	JAZZY
13	BUBBLE
14	BRUSH
15	FIESTA
16	PASSION
17	JUNGLE
18	UNICORN
19	FIREFLY
20	FREESTYLER
21	TRIMORPH
22	BEATBOX
23	DECEPTOR
24	MOTIONCITY
25	LO-FI

Kit No.	Kit Name
26	METALLIC
27	SUNRAYS
28	EUPHORIC
29	ISOLATION
30	IRONSMITH
31	NEBULA
32	URBAN
33	YESTERDAY
34	MS-20
35	VOYAGER
36	PULSE
37	DESERT
38	AVALON
39	DRONE
40	MINDTRICK
41	AVENGER
42	ETERNITY
43	RAINY
44	DRUMANIA
45	BRRRAVO!
46	ECLIPSE
47	UTOPIA
48	CITYAVENUE
49	DYNAMITE
50	MOON LIGHT

Note: The kit number 51 - 85 are for Userkit01 - UserKit35. Default assignment for all User Kits is ROCKER.

QUICK SELECTION BUTTON No.	KIT No.	KIT NAME
1	1	ROCKER
2	9	ELECTRO
3	12	JAZZY
4	15	FIESTA
5	23	DECEPTOR
6	25	LO-FI
7	36	PULSE
8	37	DESERT
9	49	DYNAMITE
10	50	MOON LIGHT

VOICE LIST

Category	Voice No.	Instrument	Layer
Kick	1	RockKick	
	2	PopKick1	*
	3	PopKick2	
	4	PopKick3	*
	5	PopKick4	*
	6	PopKick5	
	7	MetalKick1	*
	8	MetalKick2	*
	9	MetalKick3	
	10	JazzKick1	*
	11	JazzKick2	
	12	FunkKick1	
	13	JunglKick1	
	14	JunglKick2	*
	15	JunglKick3	*
	16	VinKick	
	17	ElecKick1	
	18	ElecKick2	
	19	ElecKick3	
	20	ElecKick4	
	21	Lo-FiKick	
	22	BBoxKick	
Snare	23	RockSnrSS	
	24	RockSnr	
	25	RockSnrRS	
	26	PopSnr	
	27	PopSnrRS	
	28	PopSnrSS	
	29	MetalSnrRS	
	30	MetalSnr1	*
	31	MetalSnr2	*
	32	MetalSnr3	
	33	JazzSnrRS	
	34	JazzSnrSS1	
	35	JazzSnrSS2	*
	36	JazzSnr1	*
	37	JazzSnr2	*
	38	FunkSnrRS	
	39	FunkSnrSS	
	40	FunkSnr	

Category	Voice No.	Instrument	Layer
Snare	41	BrushSnr	
	42	JunglSnr1	
	43	JunglSnr2	
	44	VinSnr1	
	45	VinSnr2	
	46	VinSnr3	
	47	FiestaSnr1	
	48	FiestaSnr2	
	49	ElecRS	
	50	ElecRS2	
	51	ElecSS	
	52	ElecSnr1	
	53	ElecSnr2	
	54	ElecSnr3	
	55	ElecSnr4	
	56	ElecSnr5	
	57	ElecSnr6	
	58	Lo-FiSnrRS	
	59	Lo-FiSnrSS	
	60	Lo-FiSnr	
	61	BBoxRS	
	62	BBoxSnr	
Rock Tom	63	RockTom11	*
	64	RockTom12	*
	65	RockTom13	*
	66	RockTom14	*
	67	RockTom15	*
	68	RockTom16	*
	69	RockTom21	*
	70	RockTom22	*
	71	RockTom23	*
	72	RockTom24	*
	73	RockTom25	*
	74	RockTom26	*
	75	RockTom31	
	76	RockTom32	
	77	RockTom33	
	78	RockTom34	
	79	RockTom35	
	80	RockTom36	

VOICE LIST

Category	Voice No.	Instrument	Layer
Pop Tom	81	PopTom11	*
	82	PopTom12	*
	83	PopTom13	*
	84	PopTom14	*
	85	PopTom15	*
	86	PopTom16	*
	87	PopTom21	*
	88	PopTom22	*
	89	PopTom23	*
	90	PopTom24	*
	91	PopTom25	*
	92	PopTom26	*
	93	PopTom31	*
	94	PopTom32	*
	95	PopTom33	*
	96	PopTom34	*
	97	PopTom35	*
	98	PopTom36	*
Vintage Tom	99	VinTom1	
	100	VinTom2	
	101	VinTom3	
	102	VinTom4	
	103	VinTom5	
	104	VinTom6	
Metal Tom	105	MetalTom11	*
	106	MetalTom12	*
	107	MetalTom13	*
	108	MetalTom14	*
	109	MetalTom15	*
	110	MetalTom16	*
	111	MetalTom21	*
	112	MetalTom22	*
	113	MetalTom23	*
	114	MetalTom24	*
	115	MetalTom25	*
	116	MetalTom26	*
Jazz Tom	117	JazzTom11	*
	118	JazzTom12	*
	119	JazzTom13	*
	120	JazzTom14	*

Category	Voice No.	Instrument	Layer
Jazz Tom	121	JazzTom15	*
	122	JazzTom16	*
	123	JazzTom21	*
	124	JazzTom22	*
	125	JazzTom23	*
	126	JazzTom24	*
	127	JazzTom25	*
	128	JazzTom26	*
Brush Tom	129	BrushTom10	*
	130	BrushTom11	*
	131	BrushTom12	*
	132	BrushTom13	*
	133	BrushTom14	*
	134	BrushTom15	*
	135	BrushTom16	*
FiestaTom	136	FiestaTom1	
	137	FiestaTom2	
	138	FiestaTom3	
	139	FiestaTom4	
	140	FiestaTom5	
	141	FiestaTom6	
Jungle Tom	142	JunglTom1	
	143	JunglTom2	
	144	JunglTom3	
	145	JunglTom4	
	146	JunglTom5	
	147	JunglTom6	
Elec. Tom	148	ElecTom11	
	149	ElecTom12	
	150	ElecTom13	
	151	ElecTom14	
	152	ElecTom15	
	153	ElecTom16	
	154	ElecTom21	
	155	ElecTom22	
	156	ElecTom23	
	157	ElecTom24	
	158	ElecTom25	
	159	ElecTom26	
	160	ElecTom31	

VOICE LIST

Category	Voice No.	Instrument	Layer
Elec. Tom	161	ElecTom32	
	162	ElecTom33	
	163	ElecTom34	
	164	ElecTom35	
	165	ElecTom36	
Bbox Tom	166	BBoxTom1	
	167	BBoxTom2	
	168	BBoxTom3	
Ride	169	RockRide	
	170	RockRideB	*
	171	MetalRideB	
	172	MetalRide	
	173	JazzRideB	*
	174	JazzRide	*
	175	BrushRideB	*
	176	BrushRide1	
	177	BrushRide2	*
	178	JunglRideB	
	179	JunglRide	
	180	VinRide	
	181	FiestaRide	
	182	ElecRide	
	183	ElecRide2	
	184	BBoxRide	
	185	BBoxRideB	
Crash	186	RockCrash1	*
	187	RockCrash2	
	188	MetalChina1	*
	189	MetalCrash2	*
	190	JazzCrash1	*
	191	JunglCrash1	
	192	JunglCrash2	

Category	Voice No.	Instrument	Layer
Crash	193	JunglCrash3	*
	194	JunglCrash4	
	195	VinChina1	
	196	VinCrash2	
	197	VinCrash3	
	198	BBoxCrash1	
	199	BBoxCrash2	
Hi-Hat	200	RockHHPd	
	201	RockHHCl	
	202	RockHHOp1	*
	203	RockHHOp2	*
	204	RockHHOp3	
	205	BrushHHPd	
	206	BrushHHCl	*
	207	BrushHHOp	*
	208	JunglHHPd	
	209	JunglHHOp	
	210	JunglHHCl	
	211	VinHHPd	
	212	VinHHCl	
	213	VinHHOp	*
	214	FiestaHHPd	
	215	FiestaHHCl	
	216	FiestaHHOp	
	217	ElecHHCl	
	218	ElecHHPd	
	219	ElecHHOp	
	220	BBoxHHCl	
	221	BBoxHHPd	
	222	BBoxHHOp	
Others	223	ElecCowbel	
	224	ElecClave	

SPECIFICATIONS

Configuration	4 X 8” Deluxe Tom (with rim), 8” Snare (double rims), 2 X12” Crash cymbal l (with Edge & choke), 14” Ride cymbal l (with Edge, Bell & choke), 8” Hi-Hat, Hi-Hat consecutive control pedal (optical sensor), 8” Kick
Voice	224 high quality voices
Drum Kit	50 preset kits and 35 user kits
Demo Song	74, Full, Drum Only and Mute mode
Sound Effects	Reverb effect with professional DSP processor
Equalizer	10 preset types
Metronome	Tempo, Time signature, Sound
Count Exercise	1 – 3 minutes
Pad Edit	Voice, Volume, Pan, Pitch, Reverb level
Setup Menu	Accomp & Drum volume for Demo, Master tuning, count sensitivity, Equalizer, Advanced (Sensitivity, Dynamic range, Velocity Curve, Cross talk, Hi-Hat Pedal), Reset
Record	15 Songs
Display	Back-light LCD, 2 Row X 16 Characters
Power	9V DC
Aux. Socket	Headphone, Line In/Out, MIDI In/Out, USB, Power In

_ All specifications are subject to change without notice

HD-010C Pro DIGITAL DRUM
USER'S MANUAL

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